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Exploring Cross-National Incarceration

Evan R. Wiley
University of Western Ontario, ewiley@uwo.ca

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by

Evan R. Wiley

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Department of Sociology
The University of Western Ontario
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Supervisors: Michael Haan & Dale Ballucci

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ABSTRACT

Incarceration is common to nation-states of all types, yet its use varies greatly. What accounts for these variations? Are certain countries simply more criminogenic than others, or are more complex relations at play? With a sample of 118 countries, and the use of linear regression, the impact of social development, neoliberal politics, and social inequality are explored. Little to no support was found for social development hypotheses, while strong support was found for political variables. Contrary to previous research, unemployment was found to be negatively associated with the use of imprisonment. The relationship between crime and incarceration was discussed and a positive association was noted between the two.

Keywords
Cross-national imprisonment, imprisonment, mass-incarceration

Although incarceration is a common practice in nation-states of all types, the rate at which it is used varies greatly. In the United States, for example, incarceration occurs at a rate of 698 individuals per 100,000, whereas in Canada and Iceland it occurs at a rate of 106 and 45 respectively (World Prison Brief, 2016). What accounts for these variations? Are certain countries simply more criminogenic than others, or are more complex relations at play? In this paper I propose that the mechanisms involved in the cross-national variation of incarceration can be best assessed through a combination of political, economic, and social variables. Through an analysis of both sociological and criminological perspectives, this study situates the relevancy of each and provides insight as to where future research should focus.

Furthermore, this study offers an important contribution to the literature by empirically grounding an otherwise theoretically saturated field. Since the carceral boom of the eighties, academics have postulated a host of theories to explain the unprecedented growth of the incarceration system. Relying on an extension of existing socio-political theories these accounts have remain devoid of empirical measurement and scrutiny. While the last decade has seen a rise in empirical investigations these studies have utilized small comparative samples with a limited number of explanatory variables. Building off of these limitations, the current study utilizes a large comparative sample of one-hundred and eighteen countries and an array of explanatory variables to gauge the impact of political, economic, and social factors.

Literature Review

A limited body of research examines the mechanisms involved in the cross-national variation of incarceration. As such, it will be necessary to draw on both the theoretical and empirical literature. I will begin by looking at the theoretical literature to establish a context for the scope and nature of empirical inquiry.

Theoretical Investigations

While many theoretical accounts have been put forward, three are particularly relevant to the global context of incarceration today: Garland's (2001), Simon's (2007) and Wacquant's (2009). By focusing on the exceptionalism of the West, these theories help establish the legitimacy of a cross-national approach.

In his account of American mass-incarceration, Garland (2001) focuses on the role of culture. The core of his argument is that contemporary American culture is saturated by perceived threats of insecurity. Historically rooted in rising crime rates coupled with political instability, crime, he argues, began to shape a new collective experience. Through the recursive channels of politics, policy, and public discourse, this experience grew and adapted to what Garland terms 'the crime complex', which pervades American culture today. As a result, he claims that everyday life is now negotiated with an explicit — albeit displaced—awareness of crime and a preoccupation with mitigating risk.

Contrary to Garland's bottom-up approach, Simon (2007) centers his analysis on the national politics of the American legislature. This shift in analysis results in the 'crime complex' becoming an effect rather than a cause of crime control policies. Put

differently, Simon (2007) argues that the United States has embraced a discourse of governing through crime. While a seemingly contradictory approach, Simon (2007) argues that governing through crime arose quite naturally from the wake of political crises in the sixties and seventies. Kennedy's assassination coupled with the Nixon scandals and other political shortcomings conveyed a message of poor executive leadership to the people. With the traditional leadership method under scrutiny, crime, he argues, was utilized as the new method of operating.

Loic Wacquant (2009) offers perhaps the most nuanced perspective of the rise of mass-incarceration. At the core of his argument is the notion that neo-liberalism has come to dominate the national and trans-national structures of everyday life. Beginning in the early eighties, he argues, the state began a three-fold transformation that centered on the neo-liberal ideal. Economic development shifted outward, social programming withered inward and penal relations of all type flourished (Wacquant 2009:4). The impetus for such a grand transformation resided in, he argues, a shift in power relations between classes. An ever-growing transnational business class joined forces with national state officials and other high-ranking bourgeoisie to propagate a new era of political relations. The cultural effect of such changes has resulted in the acceptance of an "unrestrained individual responsibility", where one's social position and worth are determined solely by one's will. This new rhetoric coupled with the trans-national reallocation of the unskilled labor market, cast those at the bottom a problem to be solved by the carceral state (Wacquant 2009:5).

As a case in point Wacquant (2009) notes the "extrapenological" functions served by the American prison system (Wacquant 2009:196). In addition to housing offenders

on the objective grounds of societal safety, prisons now serve to control and affirm the further delineation of the lower class. Not surprisingly the chief recipients of such a regime have been African Americans. Noting the historical relations that placed African Americans on the periphery of society (chattel slavery, Jim Crow, the ghetto) coupled with the contemporary neoliberal agenda, Wacquant (2009) argues that mass imprisonment reflects a new form of control for displaced and stigmatized populations.

As demonstrated by the former three accounts, the underlying relations of incarceration are a contested issue. For Garland, the rise in incarceration is explained by culture, for Simon, it is explained by national politics, and for Wacquant, it is inextricably linked to the global political economy. In the next section the empirical literature will be reviewed. Like the theoretical debate, the empirical literature is rife with contention, inconsistency, and disagreement.

Empirical Investigations

In describing the empirical literature, I will follow the natural trajectory that the field of cross-national research has taken. This approach is useful as it allows for a historical grounding that highlights the development of theory and praxis. Traversing the literature in this way also allows for the logical elucidation of the gaps and voids that now exist.

One of the earliest empirical investigations to examine differences in cross-national rates of imprisonment was conducted by Neapolitan (2001). In an attempt to link theory to practice, Neapolitan (2001) investigated three major perspectives: civilization theory, punishment and social structure, and societal inequality. The first perspective,

'civilization theory' postulated by Norbert Elias, argued that as nations become more modern and civil, social control mechanisms become less fundamental and wane. The second theory, postulated by Rusche and Kirchheimer, reversed the logic of Elias's theory and argued that as capitalism moves onward, formal social control becomes necessary to regulate the surplus labor force. The final theory investigated was Wilkins and Pease's theory of 'societal inequality'. Taking on a somewhat cultural dimension this theory posited that punishment would reflect the general acceptance of inequality in any given society.

Having established the most relevant theories Neapolitan (2001) translated the theoretical arguments into empirical indicators. HDI scores were used to assess the civilization theory, unemployment rates were used to assess the theory of punishment and social structure, and income inequality coefficients were used to assess the societal inequality theory. Homicide rates and total crime rates were also included as explanatory variables. Data for 148 countries were collected and ordinary least squares regression was used to examine cross-national variation in imprisonment. Interestingly, no empirical support was found for any of the theories. An important finding that did emerge, however, was that homicide rates were a significant predictor in the differential use of imprisonment. Previous research had hotly contested homicide's relevance to incarceration.

Following the work of Neapolitan (2001), Jacobs and Kleban (2003) proposed that political explanations should also be examined. Given the States' central role in the construction of crime and crime control policies they argued that the political aspects of incarceration should not be ignored. Of particular interest to their inquiry was how

centralized/decentralized and corporatist/federalist a given country was. Countries that are politically centralized, they explain, operate in ways that reduce public influence and thus insulate themselves from the public sentiment that can sway social policy. Likewise, corporatist arrangements are marked by elite decision-making models with complementary media coverage that serve as a buffer for social issues. They thus hypothesized that centralist-corporatist nations would incarcerate at a lesser rate then decentralized-federalist nations. While stressing the importance of political arrangements, Jacobs and Kleban (2003) also acknowledged that such explanations cannot account for all of the cross-national variation in incarceration. As a result, and given the success of national explanations of social control, they included measures of social-disorganization into their model.

With a sample of 13 of the most progressive democracies from 1970 to 1995 Jacobs and Kleban (2003) used a panel design to estimate the political and social effects on incarceration rates. Measures of corporatism and federalism were represented by previously established scales, while measures of social disorganization were represented by eight unique indicators. In line with their hypothesis the macro-level effects of corporatism and federalism were found to explain cross-national variation in incarceration rates. As they noted, "both findings suggest that imprisonment rates are most substantial in nations where the public has the greatest political influence, whereas centralized, more hierarchical political arrangements contribute to an integrative penal system that stresses restitutive rather than harsh exclusionary reaction to crime" (Jacobs and Kleban 2003:746). In terms of social disorganization, they found that ethnic divisions

and out-of-wedlock birthrates helped explain cross-national variation while unemployment had no effect.

Taking the political explanation one step further, Sutton (2013) investigated the role of globalization on incarceration rates. In particular, he investigated whether or not countries have tended to converge under a neo-liberal agenda and to what extent this global polity can be used to explain incarceration rates. On one side of the debate, Sutton argues, are academics who claim that "transnational competition has encouraged cultural and political convergence among societies" (Sutton 2013:720). These academics point to the sweeping success of neoliberalism to suggest that convergence has either happened or is inevitable. In these countries incarceration rates were expected to be high on account of displaced social policy and liberal institutions. On the other side of the debate, Sutton argues, are academics who claim that while global pressure does exist, societies still react and adapt in different non-uniform ways.

To test these competing arguments Sutton (2013) used a Bayesian change-point model with data from fifteen affluent capitalist democracies. Independent variables included indicators of life-course opportunities and distribution of political power. The results of the model found mixed support for both arguments. For example, the convergence argument was supported by an increase in average incarceration rates and a decline in social welfare and left-party influence. The heterogeneity argument was supported by the finding that union strength increased and countered the decline of left parties. Likewise, centralized societies were found to incarcerate at a lower rate than federalist societies.

Perhaps offering the most pervasive look of cross-national incarceration is Ruddell (2004). Building off of previous work in the field and extending his analysis to areas yet uncovered, he examined three factors that may be related to variation in imprisonment rates: type of legal system, transitioning democracies, and population heterogeneity. This combination of factors adds a further layer of complexity to the political and social context by situating both developed and developing countries in the purview of analysis.

In his study, Ruddell (2004) used ordinary least squares regression models to estimate the former relationships. Eleven measures of crime, economic factors, social development factors, political factors, and demographic variables were used with a sample of 100 developed and developing nations. Three important findings followed: first, a consistent relationship was discovered between homicide rates and imprisonment rates for developed nations only. Second, common law legal systems were significantly associated with imprisonment rates. Third, controlling for all other factors, incarceration rates increased with population heterogeneity.

Considerations

With the exception of Sutton (2013), most cross-national investigations are over a decade old. This lapse in time is quite significant, especially when considered alongside massive changes in the global incarceration trend. As a result, the foremost concern of the current study is to re-establish the trajectory of the field. By re-examining key elements of the former literature with a large comparative sample, this study offers a unique and promising vantage from which future research will prosper. The key themes of social

development, political development and social inequality will be explored. The precise manipulation of these themes, along with the broader methodological concerns will be elaborated upon in the following section.

Methodology

Sample

The first step in selecting the sample was determining *N*. Since most other cross-national research has employed relatively small samples (<50) it was decided to pursue a sample as large as logistically possible. Based on a precursory analysis of explanatory measures it was determined that a sample of 150 would be as large as one could go without compromising the integrity of the data. Having established *N*, inclusion in the sample was determined by selecting the top 150 countries based on their global democratic rank. *World Audit* releases an annual democratic ranking and their 2016 results were used to select the final sample (an in-depth explanation of how countries were ranked will be clarified in the section on explanatory measures). Of the 150 countries selected, 6 were removed from the sample because of missing data on the dependent variable. The countries removed were Guinea, Guinea-Bissau, North Korea, South Korea, Somalia, and Eritrea. Of the 144 remaining countries another 26 were removed because of missing data on one or more of the independent variables. The final sample included 118 countries (see appendix for the 118 countries included and the respective data for each).

Dependent Variable

Imprisonment data for 2016 was obtained from the Institute for Criminal Policy Research (ICPR). These data represent the imprisonment rate per 100,000 of the national population for each respective country. The mean incarceration rate was 166 per 100,000 residents. Though there is some debate regarding the precision and utility of these data, other measures do not satisfy the logistical requirements of a large comparative sample. National-level indicators, like annual prison admissions and sentence severity, though useful, are not readily available.

Explanatory Variables

Four explanatory variables were used for this research representing social, political, and economic indicators. These data came from a variety of sources, and following the caution of Neapolitan (2001), the inherent fallibilities associated with data collected in different manners and across time was recognized. While such shortcomings represent an obstacle to all cross-national research, standards continue to improve and analysis remains appropriate for the broad comparisons I am concerned with.

The first explanatory variable, HDI scores, was obtained from the United Nations Human Development Report. These data reflect a summary measure of human development across three dimensions: longevity, knowledge, and standard of living. The specific measures underlying the index include: life expectancy, mean years of schooling for adults over the age of 25, and gross national income (GNI) per capita (UNDP). 2014 data was obtained for all countries in the sample. This variable was chosen to assess the social development hypotheses.

The second variable, homicide rate, was obtained from the World Bank. This variable represents the intentional and unlawful killing of another person "as a result of domestic disputes, interpersonal violence, violent conflicts over land resources, intergang violence over turf or control, and predatory violence and killing by armed groups" (World Bank). The homicide rate is expressed per 100,000 of the national population. Most of the data for homicide rate was obtained in 2013 but 2012 data was used when otherwise unavailable.

The third variable, unemployment, was obtained from the CIA World Factbook. This variable represents the percent of the labor force that is without a job. Most data were from 2015, but data going back to 2006 was used when necessary.

The fourth variable, democratic rank, was obtained from World Audit. These data reflect a country's relative democratic standing. Countries are initially organized into four divisions based on their respective political rights and civil liberties, as measured by Freedom House. Next, rank is assigned within divisions by computing a mean for press-freedom and corruption scores. The lower a country's press freedom/corruption mean, the lower their democratic rank. Rank varied from 1 to 150, with 1 representing the most democratic. World Audit only audits countries with a population greater than one million. All data used was from 2016.

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Hypotheses

The four explanatory variables were transformed into three hypotheses. In hypothesis 1, the critical criminological argument that unemployment is inextricably

linked to rising incarceration rates was explored. Traditional streams of this perspective argue that unemployment is linked to incarceration through the commission of crime, while contemporary perspectives, like Wacquant's (2009), argue that the relationship is one of political necessity based on a need to control the ever burgeoning surplus labor force. Following these claims, it was hypothesized that:

H1: As unemployment increases so too does incarceration

In hypothesis 2, HDI scores were utilized to assess the role of social development. While previous investigations found no support for developmental claims, they were conducted in a time of carceral stagnation. With a decisive shift in the expansion of incarceration, it was decided to re-examine the role of these variables. As such, it was hypothesized that:

H2: As society progresses through development and time, the use of incarceration will decrease

Hypotheses 3A and 3B, assess the political dimensions of incarceration. Concerned with the inter-related roles of democracy and neoliberalism, these hypotheses investigate the implications of political convergence. While Sutton (2013) found mixed support for this proposition, his investigation relied on a Bayesian change-point model with a small, and undefined, homogenous sample. With greater methodological awareness, and with a significantly larger sample, the political dimensions of democracy and convergence were re-explored. Accordingly, it was hypothesized that:

H3A: As democracy increases the use of incarceration decreases

H3B: Neoliberal-convergence, as exemplified through OECD membership, results in an increase in incarceration within those respective countries

RESULTS

Table 1 presents the descriptive statistics for the dependent and independent variables. As demonstrated, significant variation was found across all variables with an especially large variation within incarceration rates. Given the broad comparative structure of this project these results were expected.

Table 1: Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
unemployment	118	.30	53.00	12.1890	10.77149
incarceration rate	118	16	698	166.26	119.323
HDI	118	.348	.944	.72349	.144483
Rdemocracy	118	1	149	66.76	41.992
homicide rate	118	.30	84.30	7.5932	11.78907
Valid N (listwise)	118				

The large variation within incarceration rates, however, presented itself as an obstacle to the efficient modelling of the variables. This was combatted by transforming the incarceration rate into two subsequent measures, a mean-centered measure and a rank measure. In the former case, observations were mean-centered by subtracting the mean from the individual values, and in the latter, rank was determined by assigning 1 to the country with the highest incarceration rate and 118 to the country with the lowest

incarceration rate. Similar to the dependent variable, 'Homicide' and 'HDI' were mean-centered to render a more appropriate intercept value.

Missing data is a common issue with cross-national research (Marshall, 2004; Ruddell 2005; Neapolitan, 2001) and presented obstacles to this investigation. Of the 150 countries initially pursued, 32 had to be removed because of missing data on one or more variable. Though a sizable proportion, it was decided to simply omit these countries and not use other methods of artificial substitution.

Table 2 demonstrates the results from Model 1 where all four independent variables were considered within a linear regression framework. The model of fit was moderate with an adjusted r^2 value of .311. All of the variables were statistically significant. As expected, homicide rate and democratic rank had a negative association. More surprising, however, was the finding that unemployment rate had a positive association, and HDI a negative association with incarceration rank.

Table 2: Model 1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	71.728	7.732		9.277	.000
	unemployment	.639	.272	.202	2.346	.021
	Rdemocracy	-.229	.080	-.282	-2.853	.005
	cHomicide	-.870	.234	-.300	-3.719	.000
	cHDI	-122.274	25.657	-.517	-4.766	.000

a. Dependent Variable: Rank of Incarceration Rate

While model 1 provides a sufficient framework to evaluate the first two hypotheses, it is not suitable for the evaluation of hypothesis 3B. As such, another model was generated in order to analyze the political dimension of OECD countries versus non-OECD countries. In model 2, observations from the 20 OECD countries were isolated and regressed upon the dependent variable. Table 3 presents the descriptive statistics of this sample while table 4 presents the coefficients of the linear regression.

Table 3: OECD Descriptives

Descriptive Statistics[a]

	Mean	Std. Deviation	N
Rank of IncarcerationRate	72.70	31.893	20
Unemployment	7.2250	2.87985	20
cHomicide	-6.3140	.73061	20
Rdemocracy	11.45	8.069	20

a. Selecting only cases for which OECD = 1.00

Table 4: Model 2- OECD Regression Coefficients

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-92.798	51.914		-1.788	.093
	Unemployment	3.588	2.245	.324	1.598	.130
	cHomicide	-26.000	7.582	-.596	-3.429	.003
	Rdemocracy	-2.147	.793	-.543	-2.707	.016

a. Dependent Variable: Rank of Incarceration Rate

b. Selecting only cases for which OECD = 1.00

Similar to Model 1, democratic rank was a significant predictor of incarceration rank, where an increase in democratic rank was associated with a decrease in the use of incarceration. This finding was not expected as the convergence literature suggested that democracy should have a positive effect on the use of incarceration in neoliberal countries. The implications of both models are discussed below.

Discussion

While many noteworthy findings emerged, they must first be contextualized within the 'crime/incarceration matrix'. When tracing the etiology of incarceration rates, crime rates present themselves as a logical beginning. Of course, in order to be sentenced to prison, a crime, or a belief thereof, must be present. The logic takes a simple linear form: incarceration is necessarily dependent on crime. While true, this line of reasoning fails to capture the complexity of the problem. For example, when a crime is tried before the courts, incarceration only represents one of several other responses. Sentences like, house arrest, community service, probation, and extrajudicial sanctions are all common alternatives. Since sentencing, whether custodial or otherwise, is largely dependent on the specific characteristics of the offence, 'crime' becomes too general of a term to substantiate as an identifiable cause.

To further complicate the crime/incarceration problem is the distribution of offences to offenders. It has long been accepted within criminology that a majority of crime is committed by a minority of offenders. In order to have an impact on the crime rate, habitual offenders must be incarcerated at a greater rate than their counterparts. In this sense, the relationship between crime and incarceration becomes a matter of

probability. These sentiments are echoed in the dominant literature where it is argued that crime rates have a limited, if not an altogether null effect on incarceration rates (Levitt, 2001; Liedka et al, 2006; Smith, 2004; Stemen, 2007).

Collectively these considerations form a matrix where a constant interplay between crime and incarceration shapes the material existence of effective crime control. The relationship is summed up best by Jack Young who argues, "[the idea] that there is a direct and obvious relationship between high risk of imprisonment and the level of crime… is a classic of common sense, yet it is as incorrect as its opposite, the rather irritating liberal assumption that the crime rate has nothing whatsoever to do with the imprisonment rate" (as cited in The Punitive State, 37).

While in full agreeance with this logic, I was nevertheless curious to see how the relationship was reflected in my data. Unfortunately, crime-rate data was not available, so, like previous investigations, homicide rates were used as a proxy. As a result, a strong-positive relationship was uncovered. This finding supports the former position that crime rates can have a meaningful impact on the use of incarceration. Though somewhat superficial, it nonetheless establishes a legitimacy for future inquiry into how this relationship is maintained. Perhaps homicide is a strong predictor of violent crime in general, and consequently, violent crime is a strong predictor of incarceration. Or maybe homicide is a proxy for a pattern of less serious crimes, and it is these latter crime-patterns that explain the use of incarceration. Alternatively, homicide rates might have nothing to do with other crime patterns at all and might be better explained by cultural factors like population heterogeneity. In any event, the relationship between homicide

and incarceration needs to be explored in a more central way before its inclusion can be justified within a cross-national framework.

Next, in exploring the root causes of incarceration, the crime/incarceration problem had to be navigated in a way that would acknowledge the influence of crime without being reduced to it. This was accomplished in hypothesis 1, for example, by assessing the impact of unemployment on incarceration. In-line with the tradition critical criminological stream, it was hypothesized that as unemployment increases so too would incarceration. Following these broad theoretical strokes, crime was hypothesized to play a mediating role. Contrary to these theories, however, it was found that unemployment was negatively associated with incarceration. This is surprising, especially within the context of the wider literature. While other investigations failed to find empirical support between unemployment and incarceration (Neapolitan, 2001) none uncovered an outright negative relationship. Part of the difficulty in interpreting these results has to do with the mediating role of crime. Historically, there may have been linear variation between unemployment and crime, and crime and incarceration, that no longer exists today. For example, the relationship between unemployment and crime might mirror the positive relationship of the past, while, the relationship between crime and incarceration may no longer bare any significance. This explanation seems even more plausible when considered alongside changes in penal philosophy. Unlike the eighties, nineties, and early millennia, the costs of incarceration represent a serious threat to economies and governments alike. Sentencing guidelines may therefore have changed in response to this financial crisis, where petty-crimes that were once associated with incarceration are now being sentenced otherwise.

Wacquant's (2009) claim about political control, rather than crime, is much more difficult to assess. While this investigation uncovered a negative relationship, which invariably casts doubt on this proposition, Wacquant's focus was on nations with strong neoliberal ties. Extending his argument beyond this scope was simply too grand. Nonetheless, the finding suggests that his claim is perhaps not as transnational as he sometimes suggests.

In hypothesis 2 I explored the role played by societal progress on incarceration. Loosely based on Norbert Elias's civilization theory, and in tandem with Neapolitan's (2001) investigation, I examined the influence of HDI scores. In particular, I expected to find a strong negative relationship between these scores and incarceration rank. When originally tested by Neapolitan in 2001, no support for this hypothesis was found. Neapolitan (2001) did, however, suggest that perhaps his results were influenced by developing nations, where imprisonment lacked the material resources to both expand and establish itself as a dominant social institution. In the current study, I revisited this claim by testing Neapolitan's hypothesis. Since his study, the incarceration trend has changed in a way that allows for the test of this proposition. Between 2000 and 2015 the world prison population has changed dramatically. Central American countries have seen an 80% growth, South American countries a 145% growth, and West African countries a 40% growth (Walmsley, 2015). Based on Neapolitan's predictions, civilization theory should now be of predictive value. Interestingly, HDI, though significant, lacked the anticipated direction of effect. Based on these findings it appears that civilization theory, as operationalized by Neapolitan (2001), holds little predictive value for the explanation of cross-national incarceration.

In hypothesis 3A and 3B I explored a political dimension of incarceration: the role of democracy. While democracy has been discussed in many cross-national investigations, none have included it as a singular measure. This is surprising, given how replete the literature is with reference to democracy as an essential mediator between trans-national competition and political convergence. As such, and following Sutton's (2013) investigation, I explored the influence of democracy on the use of incarceration. In hypothesis 3A I explored the influence of democracy on incarceration for the entire sample of 118 countries. This was needed to establish a baseline from which more refined measures could be compared. For example, perhaps convergence has not yet occurred and high levels of democracy are still associated with low levels of incarceration. Given the absence of data to the contrary, this was the relationship hypothesized. The regression resulted in a negative relationship between democracy and incarceration with significance at the .01 level. Though this neither proves nor disproves political convergence, it suggests that political heterogeneity is more readily observed at the global level.

In hypothesis 3B I refined my analysis to countries with strong neoliberal ties. This was accomplished by sorting countries by OECD status. Since OECD initiatives follow a strict neoliberal agenda, only countries that belong were included. This time it was hypothesized that as democracy increases so too would the use of incarceration. According to the convergence literature, democracy should be positively associated with incarceration in neoliberal countries, regardless of political convergence at the global level. Surprisingly this relationship was not observed, and similar to the results of hypothesis 3A, a negative relationship was noted. These findings have important

implications for the political convergence literature. Though democracy has been argued to play an important role in the relationship between transnational competition and political convergence, this research found no such effect. Political-economical theorists should now revisit this model and either abandon democracy as a mediator or hypothesize a new set of conditions under which it operates.

Limitations

Similar to other cross-national research, consistency of data was a serious limitation to this study. Measures like unemployment, homicide, and incarceration are measured in different ways and collected at different times across countries. Large time lapses in the collection of data meant that many countries had to be outright omitted from the analysis. Sampling was another issue that posed significant problems. In order to assess the three dimensions of concern, (social, economic, political) a criterion had to be selected that would allow for adequate analysis. I settled on democratic rank but this came with drawbacks of its own. For example, of the top ten countries with the highest incarceration rates only three could be included. Future researchers should not avoid large samples, but need to find a way to include countries that do not fit with common criterions. This is perhaps best achieved by narrowing the socio-economical-political gaze.

APPENDIX

Sample and variables

Country	Incarceration Rate	Unemployment Rate	Homicide Rate	HDI	Democracy Rank
Afghanistan	74	35.00	6.50	0.465	132
Albania	189	18.00	4.00	0.733	60
Algeria	162	10.60	1.30	0.736	91
Argentina	160	7.30	7.00	0.836	64
Armenia	130	17.60	2.00	0.733	94
Australia	152	6.10	1.10	0.935	12
Austria	95	5.60	0.70	0.885	14
Bangladesh	43	5.00	2.80	0.570	99
Belarus	306	0.70	3.60	0.798	141
Belgium	105	8.50	1.80	0.890	8
Bhutan	145	3.20	2.50	0.605	73
Bolivia	122	7.30	12.10	0.662	60
Bosnia and Herzegovina	73	43.90	1.20	0.733	79
Botswana	188	17.80	15.40	0.698	40
Brazil	301	4.80	26.50	0.755	54
Bulgaria	125	11.20	1.50	0.782	46
Cambodia	112	0.30	1.80	0.555	120
Cameroon	115	30.00	2.80	0.512	114
Canada	106	6.90	1.40	0.913	9
Central African Republic	16	8.00	13.60	0.350	120
Chile	242	6.30	3.10	0.832	21
China	119	4.10	0.80	0.727	122
Colombia	242	9.10	31.80	0.720	84
Congo, Republic of the	27	53.00	10.50	0.591	109
Costa Rica	352	8.60	8.40	0.755	22
Croatia	81	20.30	1.10	0.818	34
Cuba	510	2.70	4.70	0.769	119
Czech Republic	200	7.70	0.90	0.870	25
Denmark	61	4.90	0.70	0.923	1
Dominican Republic	231	14.50	22.00	0.715	55
Ecuador	162	4.30	12.40	0.732	70
Egypt	76	13.00	3.40	0.690	111
El Salvador	506	6.20	39.80	0.666	47
Estonia	214	7.30	4.10	0.861	14
Ethiopia	128	17.50	8.10	0.442	124
Finland	57	8.70	1.70	0.883	1
France	100	10.20	1.20	0.888	19

Gabon	210	21.00	9.60	0.684	109
Georgia	274	12.40	4.30	0.754	44
Germany	76	5.00	0.70	0.916	10
Ghana	53	5.20	1.70	0.579	33
Greece	90	26.60	1.40	0.865	53
Haiti	102	40.60	10.20	0.483	107
Honduras	196	4.30	84.30	0.606	111
Hungary	187	7.70	2.70	0.828	41
India	33	7.30	3.30	0.609	50
Indonesia	67	5.90	0.60	0.684	60
Iran	287	10.30	4.80	0.766	142
Iraq	123	16.00	8.00	0.654	132
Ireland	80	11.30	1.10	0.916	11
Israel	256	5.90	1.70	0.894	31
Italy	86	12.70	0.80	0.873	29
Jamaica	145	14.20	42.90	0.719	37
Japan	48	3.60	0.30	0.891	17
Jordan	150	11.90	2.40	0.748	79
Kazakstan	231	5.00	7.80	0.788	135
Kenya	118	40.00	6.60	0.548	105
Kuwait	92	3.00	1.90	0.816	78
Kyrgyzstan	166	8.00	5.40	0.655	114
Latvia	239	8.90	3.50	0.819	36
Lesotho	92	26.10	38.00	0.497	51
Libya	99	30.00	2.50	0.724	135
Lithuania	268	10.70	6.80	0.839	23
Madagascar	83	2.60	0.60	0.510	102
Malaysia	171	2.90	1.90	0.779	82
Mali	33	30.00	11.20	0.419	74
Mauritania	44	31.00	11.40	0.506	86
Mauritius	154	7.80	2.70	0.777	32
Mexico	212	4.80	18.90	0.756	68
Moldova	215	6.20	5.00	0.693	66
Mongolia	266	7.70	7.50	0.727	35
Morocco	222	9.70	1.30	0.628	100
Mozambique	57	17.00	3.70	0.416	79
Namibia	144	28.10	17.50	0.628	39
Nepal	59	46.00	2.90	0.548	98
Netherlands	69	7.40	0.70	0.922	5
New Zealand	194	5.70	1.00	0.913	7
Nicaragua	181	6.00	11.30	0.631	91
Niger	39	5.10	4.70	0.348	83
Nigeria	31	23.90	10.30	0.514	96

Norway	71	3.50	0.90	0.944	4
Oman	36	15.00	1.20	0.793	94
Pakistan	43	6.80	7.80	0.538	108
Panama	392	4.50	17.20	0.780	57
Papua New Guinea	61	1.90	10.40	0.505	75
Paraguay	158	7.30	8.90	0.679	70
Peru	247	5.50	6.70	0.734	59
Philippines	121	6.80	9.30	0.668	55
Poland	186	12.30	0.80	0.843	23
Portugal	138	13.90	1.30	0.830	20
Romania	143	6.80	1.50	0.793	44
Russia	447	5.20	9.00	0.798	129
Saudi Arabia	161	11.60	6.20	0.837	102
Senegal	62	48.00	8.10	0.466	51
Serbia	148	19.70	1.50	0.771	47
Singapore	227	2.00	0.30	0.912	72
Slovakia	183	12.80	1.40	0.844	28
Slovenia	73	13.10	0.60	0.880	25
South Africa	292	25.10	31.90	0.666	43
Spain	133	24.50	0.60	0.876	27
Sudan	50	13.60	6.50	0.479	144
Sweden	55	7.90	0.90	0.907	1
Switzerland	84	3.20	0.70	0.930	6
Tajikistan	121	2.50	1.50	0.624	132
Thailand	468	0.80	4.90	0.726	111
Trinidad and Tobago	258	3.30	28.30	0.772	42
Tunisia	212	14.90	3.10	0.721	57
Turkey	228	10.00	4.30	0.761	88
Turkmenistan	583	11.00	4.30	0.688	149
Ukraine	193	9.30	4.30	0.747	69
United Arab Emirates	229	2.40	0.60	0.835	76
United Kingdom	367	6.20	1.00	0.907	12
United States	698	6.20	3.80	0.915	14
Uruguay	291	6.60	7.70	0.793	17
Venezuela	159	7.00	53.60	0.762	143
Vietnam	154	3.40	1.50	0.666	130
Yemen	53	27.00	7.00	0.498	140
Zambia	125	15.00	6.20	0.586	90

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